

IN THE CLAIMS:

The following is a complete listing of claims in this application.

Claims 1-26 (canceled).

27. (new) A scalding tunnel for slaughtered animals, comprising a tunnel having disposed therein along a path of conveyance for the slaughtered animals, a plurality of multicomponent nozzles, each of said nozzles comprising at least one means for connection to a source of steam and a means for connection to a source of water,

the nozzles being constructed and arranged to discharge a mixture of steam and water that is sprayed in the tunnel.

28. (new) The scalding tunnel according to claim 27, wherein the multicomponent nozzles are arranged in the scalding tunnel such that the atmosphere present in the scalding tunnel is circulated.

29. (new) The scalding tunnel according to claim 27, wherein at least two of the multicomponent nozzles are arranged substantially in a base area of the scalding tunnel.

30. (new) The scalding tunnel according to claim 27, wherein at least two of the multicomponent nozzles are oriented in such a way that discharge jets therefrom are directed with a substantial component longitudinally of the scalding tunnel.

31. (new) The scalding tunnel according to claim 27, wherein at least one of the multicomponent nozzles is directed to spray in a direction of conveyance of slaughtered animals in the scalding tunnel and at least one of the multicomponent nozzles is directed to spray opposite to said direction of conveyance.

32. (new) The scalding tunnel according to claim 27, wherein the multicomponent nozzles are arranged, in plan view, on one longitudinal side of the scalding tunnel.

33. (new) The scalding tunnel according to claim 27, wherein a volume control is provided for steam amount supplied to the multicomponent nozzles.

34. (new) The scalding tunnel according to claim 27, wherein a volume control is provided for water amount supplied to the multicomponent nozzles.

35. (new) The scalding tunnel according to claim 27, wherein at least one control valve is provided for steam amount supplied to at least one multicomponent nozzles for temperature control.

36. (new) The scalding tunnel according to claim 35, wherein not all of the multicomponent nozzles are connected to the control valve.

37. (new) The scalding tunnel according to claim 35, wherein all the multicomponent nozzles are connected to the control valve.

38. (new) The scalding tunnel according to claim 27, wherein the scalding tunnel does not include ventilators for circulating internal atmosphere.

39. (new) The scalding tunnel according to claim 27, wherein the multicomponent nozzle is a dual component nozzle.

40. (new) The scalding tunnel according to claim 27, wherein the multicomponent nozzle is oriented such that the nozzle has a direction of discharge, relative to horizontal, at an angle α , where $5^\circ \leq \alpha \leq 15^\circ$.

41. (new) The scalding tunnel according to claim 27, wherein the multicomponent nozzle is oriented such that the nozzle has a direction of longitudinal discharge, relative to vertical, at an angle β , where $30^\circ \leq \beta \leq 50^\circ$.

42. (new) A method for scalding slaughtered animals in a scalding tunnel, comprising transporting the slaughtered animals through a scalding tunnel, and spraying on the slaughtered animals during transport through the tunnel a

mixture of steam and water,

wherein the mixture of steam and water is sprayed through a plurality of multicomponent nozzles arranged directly in the scalding tunnel, with both water and steam directly supplied to each of said nozzles.

43. (new) The method according to claim 42, wherein the sprayed mixture of water and steam is supersaturated.

44. (new) The method according to claim 42, wherein the temperature of the mixture sprayed through the multicomponent nozzles is set such that, on discharge from the multicomponent nozzles, the mixture has a temperature T_1 , where $T_1 \geq 100^\circ \text{C}$.

45. (new) The method according to claim 44, wherein $T_1 \geq 120^\circ \text{C}$.

46. (new) The method according to claim 45, wherein $120^\circ \text{C} \leq T_1 \leq 160^\circ \text{C}$.

47. (new) The method according to claim 42, wherein the temperature of the mixture sprayed through the multicomponent nozzles is set, and/or the multicomponent nozzles are arranged in the scalding tunnel, such that the mixture striking the slaughtered animals has a temperature T_2 , where $55^\circ \text{C} \leq T_2 \leq 70^\circ \text{C}$.

48. (new) The method according to claim 42, wherein the multicomponent nozzles are arranged in the scalding tunnel such that a circulation of the atmosphere present in the scalding tunnel is effected to such a degree that homogeneous or substantially homogeneous humidity conditions prevail in the scalding tunnel.

49. (new) The method according to claim 42, wherein the scalding tunnel is operated without ventilators.

50. (new) The method according to claim 42, wherein at least two of the multicomponent nozzles are supplied with steam at 2 bar to 6 bar superatmospheric pressure.

51. (new) The method according to claim 42, wherein at

least two of the multicomponent nozzles are supplied with steam at 120° C to 160° C.

52. (new) The method according to claim 42, wherein at least two of the multicomponent nozzles are supplied with saturated or supersaturated steam.

53. (new) The method according to claim 42, wherein at least two of the multicomponent nozzles are supplied with water at about 0.2 bar superatmospheric pressure.

54. (new) The method according to claim 16, wherein multicomponent nozzles are dual component nozzles, at least two of which are supplied with water having a temperature of 20° C to 70° C.